

AMENDMENTS TO THE SPECIFICATION

1. Please replace paragraph [0031] of US Patent Application Publication No. 20050195988 (US Application No. 10/792,313) with the following amended paragraph:

[0031] Further, it should be noted that particular applications may require some degree of beam overlap to provide for improved signal source localization. In such cases, the amount of desired overlap between beams is simply used to determine the number of beams needed to provide full coverage of the desired workspace. One example of an application wherein beam overlap is used is provided in a copending patent application entitled "A SYSTEM AND METHOD FOR IMPROVING THE PRECISION OF LOCALIZATION ESTIMATES," filed March 1, 2004 ~~TBD~~, and assigned Serial Number 10/791,252 ~~TBD~~, the subject matter of which is incorporated herein by this reference. Thus, for example, where a 50-percent beam overlap is desired, the number of beams will be doubled, and using the aforementioned example of the 20-degree beam width at a particular frequency for a circular workspace, the workspace would be divided into 36 overlapping 20-degree beams, rather than using only 18 beams.

2. Please replace paragraph [0082] of US Patent Application Publication No. 20050195988 (US Application No. 10/792,313) with the following amended paragraph:

[0082] Further, it should be noted that particular applications may require some degree of beam overlap to provide for improved signal source localization. In such cases, the amount of desired overlap between beams is simply used to determine the number of beams needed to provide full coverage of the desired workspace. One example of an application wherein beam overlap is used is provided in a copending patent application entitled "A SYSTEM AND METHOD FOR IMPROVING THE PRECISION OF LOCALIZATION ESTIMATES," filed March 1, 2004 ~~TBD~~, and assigned Serial Number 10/791,252 ~~TBD~~, the subject matter of which is incorporated herein by this reference. Thus, for example, where a 50-

percent beam overlap is desired, the number of beams will be doubled, and using the example of the 20-degree beam width provided above for a circular workspace, the workspace would be divided into 36 overlapping 20-degree beams, rather than using only 18 beams.

3. Please replace paragraph [0087] of US Patent Application Publication No. 20050195988 (US Application No. 10/792,313) with the following amended paragraph:

[0087] In this embodiment, once connected to the external computing device, the microphone array provides its device description to the external computing device, which then uses the generic beamformer to automatically generate a set of beams automatically optimized for the connected microphone array. Further, the generic beamformer operating within the external computing device then performs all beamforming operations outside of the microphone array. This mechanism for automatically reporting the microphone array configuration and operational parameters to an external computing device is described in detail in a copending patent application entitled "SELF-DESCRIPTIVE MICROPHONE ARRAY," filed February 9, 2004, and assigned Serial Number 10/775,371 ~~TBD~~, the subject matter of which is incorporated herein by this reference.

4. Please replace paragraph [0089] of US Patent Application Publication No. 20050195988 (US Application No. 10/792,313) with the following amended paragraph:

[0089] In particular, in this embodiment, the integral self-calibration system injects excitation pulses of a known magnitude and phase to all preamplifier inputs within the microphone array. The resulting analog waveform from each preamplifier output is then measured. A frequency analysis, such as, for example, a Fast Fourier Transform (FFT), or other conventional frequency analysis, of each of the resulting waveforms is then performed. The results of this frequency analysis are then used to compute frequency-domain compensation gains for each preamplifier for matching or balancing the responses of all of the preamplifiers with each other.

This integral self-calibration system is described in detail in a copending patent application entitled "ANALOG PREAMPLIFIER MEASUREMENT FOR A MICROPHONE ARRAY," filed February 4, 2004, and assigned Serial Number 10/772,528 ~~TBD~~, the subject matter of which is incorporated herein by this reference.